

OICE

RAW SEQUENCE LISTING

DATE: 09/18/2001

PATENT APPLICATION: US/09/942,407

TIME: 16:20:49

Input Set : D:\30062-20049.txt

Output Set: N:\CRF3\09182001\I942407.raw

#2

ENTERED

4 <110> APPLICANT: Kosan Biosciences, Inc.
5 Santi, Daniel
6 Peck, Larry
7 Dayem, Linda
8 Kealey, James
10 <120> TITLE OF INVENTION: ISOLATED GENE FOR METHYLMALONYL COA EPIMERASE AND USES
THEREOF
13 <130> FILE REFERENCE: 30062-20049.10
C--> 15 <140> CURRENT APPLICATION NUMBER: US/09/942,407
C--> 16 <141> CURRENT FILING DATE: 2001-08-29
18 <150> PRIOR APPLICATION NUMBER: US 09/699,136
19 <151> PRIOR FILING DATE: 2000-10-27
21 <150> PRIOR APPLICATION NUMBER: US 60/161,414
22 <151> PRIOR FILING DATE: 1999-10-25
24 <150> PRIOR APPLICATION NUMBER: US 60/161,703
25 <151> PRIOR FILING DATE: 1999-10-27
27 <150> PRIOR APPLICATION NUMBER: US 60/206,082
28 <151> PRIOR FILING DATE: 2000-05-18
30 <160> NUMBER OF SEQ ID NOS: 2
32 <170> SOFTWARE: FastSEQ for Windows Version 4.0
34 <210> SEQ ID NO: 1
35 <211> LENGTH: 447
36 <212> TYPE: DNA
37 <213> ORGANISM: Artificial Sequence
39 <220> FEATURE:
40 <223> OTHER INFORMATION: Isolated and recombinant form of the full
41 epimerase gene sequence
43 <221> NAME/KEY: CDS
44 <222> LOCATION: (1)...(444)
46 <400> SEQUENCE: 1
47 atg agt aat gag gat ctt ttc atc tgt atc gat cac gtg gca tat gcg 48
48 Met Ser Asn Glu Asp Leu Phe Ile Cys Ile Asp His Val Ala Tyr Ala
49 1 5 10 15
51 tgc ccc gac gcc gac gag gct tcc aag tac tac cag gag acc ttc ggc 96
52 Cys Pro Asp Ala Asp Glu Ala Ser Lys Tyr Tyr Gln Glu Thr Phe Gly
53 20 25 30
55 tgg cat gag ctc cac cgc gag gag aac ccg gag cag gga gtc gtc gag 144
56 Trp His Glu Leu His Arg Glu Glu Asn Pro Glu Gln Gly Val Val Glu
57 35 40 45
59 atc atg atg gcc ccg gct gcg aag ctg acc gag cac atg acc cag gtt 192
60 Ile Met Met Ala Pro Ala Ala Lys Leu Thr Glu His Met Thr Gln Val
61 50 55 60
63 cag gtc atg gcc ccg ctc aac gac gag tcg acc gtt gcc aag tgg ctt 240
64 Gln Val Met Ala Pro Leu Asn Asp Glu Ser Thr Val Ala Lys Trp Leu
65 65 70 75 80
67 gcc aag cac aat ggt cgc gcc gga ctg cac cac atg gca tgg cgt gtc 288
68 Ala Lys His Asn Gly Arg Ala Gly Leu His His Met Ala Trp Arg Val
69 85 90 95

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```

71 gat gac atc gac gcc gtc agc gcc acc ctg cgc gag cgc ggc gtg cag      336
72 Asp Asp Ile Asp Ala Val Ser Ala Thr Leu Arg Glu Arg Gly Val Gln
73          100          105          110
75 ctg ctg tat gac gag ccc aag ctc ggc acc ggc ggc aac cgc atc aac      384
76 Leu Leu Tyr Asp Glu Pro Lys Leu Gly Thr Gly Gly Asn Arg Ile Asn
77          115          120          125
79 ttc atg cat ccc aag tcg ggc aag ggc gtg ctc atc gag ctc acc cag      432
80 Phe Met His Pro Lys Ser Gly Lys Gly Val Leu Ile Glu Leu Thr Gln
81          130          135          140
83 tac ccg aag aac tga      447
84 Tyr Pro Lys Asn
85 145
88 <210> SEQ ID NO: 2
89 <211> LENGTH: 148
90 <212> TYPE: PRT
91 <213> ORGANISM: Artificial Sequence
93 <220> FEATURE:
94 <223> OTHER INFORMATION: Deduced amino acid sequence of the epimerase gene ✓
95     sequence
97 <400> SEQUENCE: 2
98 Met Ser Asn Glu Asp Leu Phe Ile Cys Ile Asp His Val Ala Tyr Ala
99  1          5          10          15
100 Cys Pro Asp Ala Asp Glu Ala Ser Lys Tyr Tyr Gln Glu Thr Phe Gly
101          20          25          30
102 Trp His Glu Leu His Arg Glu Glu Asn Pro Glu Gln Gly Val Val Glu
103          35          40          45
104 Ile Met Met Ala Pro Ala Ala Lys Leu Thr Glu His Met Thr Gln Val
105          50          55          60
106 Gln Val Met Ala Pro Leu Asn Asp Glu Ser Thr Val Ala Lys Trp Leu
107 65          70          75          80
108 Ala Lys His Asn Gly Arg Ala Gly Leu His His Met Ala Trp Arg Val
109          85          90          95
110 Asp Asp Ile Asp Ala Val Ser Ala Thr Leu Arg Glu Arg Gly Val Gln
111          100          105          110
112 Leu Leu Tyr Asp Glu Pro Lys Leu Gly Thr Gly Gly Asn Arg Ile Asn
113          115          120          125
114 Phe Met His Pro Lys Ser Gly Lys Gly Val Leu Ile Glu Leu Thr Gln
115          130          135          140
116 Tyr Pro Lys Asn
117 145

```

VERIFICATION SUMMARY

PATENT APPLICATION: US/09/942,407

DATE: 09/18/2001

TIME: 16:20:50

Input Set : D:\30062-20049.txt

Output Set: N:\CRF3\09182001\I942407.raw

L:15 M:270 C: Current Application Number differs, Replaced Current Application Number

L:16 M:271 C: Current Filing Date differs, Replaced Current Filing Date